

### Abstract

It is intended to provide extracellular markers whereby Notch signal transduction can be detected. Polypeptides (N $\beta$ ), which are novel peptides originating in Notch protein and released from cells in the step of the nuclear migration of NICH (Notch intracellular cytoplasmic domain) due to the extracellular digestion and the subsequent protein digestion in the membrane during a series of the Notch protein digestion, are referred to as markers. These peptides (N $\beta$ ) are released from the cells in proportion to the Notch signal depending on presenilin. By detecting these peptides, the Notch signal transduction, cell differentiation, cell tumorigenesis, apoptosis, Alzheimer's disease, etc. can be monitored.